

WHAT IS CLAIMED IS:

1. A home appliance control system comprising:

an external Internet network installed outside of a
5 building;

an internal Internet network installed inside of the
building and connected to said external Internet network via
networking equipment;

a plurality of home appliances installed in the
10 building;

a computing device for setting respective private
Internet protocol (IP) addresses of said home appliances such
that said appliances are connected to said internal Internet
network on the basis of the set private IP addresses; and

15 a plurality of communication modules installed
respectively in said home appliances, each of said
communication modules storing the private IP address of a
corresponding one of said home appliances, set by said
computing device, and processing data transmitted and received
20 between said internal Internet network and said corresponding
home appliance appropriately to standards of said internal
Internet network and said corresponding home appliance.

2. The home appliance control system as set forth in
25 claim 1, wherein said computing device has a public IP address

for enabling access from said external Internet network.

3. The home appliance control system as set forth in claim 1, wherein each of said communication modules includes:

5 a data storage unit for storing the set private IP address of said corresponding home appliance;

an interface storage unit for storing a user interface appropriate to a control and state observation of said corresponding home appliance having said private IP address stored in said data storage unit; and

10 a data processor for converting/processing data transmitted and received between said internal Internet network and a main controller of said corresponding home appliance appropriately to standards of said internal Internet network and main controller.

15 4. The home appliance control system as set forth in claim 3, wherein said user interface stored in said interface storage unit is configured to be sent to said computing device such that a user controls said corresponding home appliance through said computing device.

20 5. The home appliance control system as set forth in claim 4, wherein said user interface stored in said interface storage unit includes a Java program executable in said

computing device.

6. The home appliance control system as set forth in claim 4, wherein said user interface stored in said interface storage unit includes a Java program executable in a personal computer of the user when said user gains access to said computing device through said external Internet network.

7. A method for controlling home appliances, comprising the steps of:

a) installing a plurality of communication modules in the home appliances, respectively, each of said communication modules storing a set private IP address of a corresponding one of said home appliances and processing data transmitted and received between an internal Internet network of a building in which said home appliances are installed and said corresponding home appliance appropriately to standards of said internal Internet network and said corresponding home appliance;

b) setting the private IP addresses of said home appliances, respectively; and

c) controlling each of said home appliances with the set private IP addresses through a user interface appropriate to the appliance control.

8. The method as set forth in Claim 7, further

comprising the step of:

d) if a user desires to gain access to a specific one of said home appliances to control it, determining whether the user has a code valid to control the specific home appliance;

5 whereby said step c) is performed only when said user has the valid code.

9. The method as set forth in Claim 7, further comprising the steps of:

10 d) connecting said home appliances to said internal Internet network if the private IP addresses of said home appliances are set at said step b); and

 e) determining whether each of said home appliances has been connected to said internal Internet network.

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10. The method as set forth in Claim 7, wherein said step c) includes the step of:

20 c-1) storing said user interface appropriate to the appliance control in each of said home appliances and sending the stored user interface to a user desiring the appliance control such that it is executed by the user.

11. The method as set forth in Claim 10, wherein said step c) further includes the steps of:

25 c-2) determining whether a private IP address contained

in home appliance control information inputted through said user interface is the same as the set private IP address of each of said home appliances;

5 c-3) transferring a user's control command inputted through said user interface to a specific one of said home appliances if the private IP address of said control information is the same as the set private IP address of the specific home appliance; and

10 c-4) controlling only said specific home appliance in response to the transferred control command.